

Lab Plans and Actions for Week 8/11/08-8/17/08

Scientist	Report (8/11-8/17)	Plans (8/18-8/24)
Jane Zhang	<ul style="list-style-type: none"> - Make and test new batch of SERS substrate (set IV, V, and VI) <ul style="list-style-type: none"> ▪ First trials with 250um thick cover, flow sol into the microwells through the channels ▪ See procedures and results in the table below 	<ul style="list-style-type: none"> - Derive stable and repeatable procedure for making SERS substrate in microwells with 1.5mm opening - Abstract to IEEE MEMS

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All files and images are stored in these folders

Set	Opening	Drying	Fast reduction	Slow reduction	Remarks
IV	0.75mm diameter	N2, 24hr	No visible color change	Did not proceed	Not enough sol got into the microwells, no color change at reduction
V	0.75mm diameter	N2, 24hr	Color change only at the rim of the wells	In desiccators	Channels blocked so reduction agent couldn't get in. Eventually used direct reduction through openings.
VI	A: no opening	Air, 42hr	Put in 12mg/50ml NaBH4 beaker, on shaker at speed 4, for 1hr A: not visible	Put B,C in 1mg/50ml NaBH4 beaker, on shaker at speed 4, overnight (15hr)	1.5mm opening gave better result
	B: 0.75mm diameter		B: slight color change, but cannot tell if substrate formed donut shape		
	C: 1.5mm diameter		C: turned to purple in 2/4 wells		